

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,501,582 B2
APPLICATION NO. : 10/790363
DATED : March 10, 2009
INVENTOR(S) : McDermott et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete the title page and substitute therefore the attached title page showing the corrected number of claims in the patent.

Column 9, line 35, after the, delete "top".

Column 10, line 14, after surface, insert -- , --.

Column 11, line 31, insert -- a -- before portion.

Column 11, lines 35-36, delete "cavities are obtusely angled and".

Column 12, line 47, delete "top".

Column 17, line 21, delete "top".

Column 24, line 33, delete "method" and there insert -- process --.

Column 24, line 38, add the following claims:

163. The process of any one of claims 1, 7, 12, 18, 19, 23, 27, 28, 32, 33, 38, 39, further including subjecting the dielectric material to a first etching of the dielectric material and a second etching of the dielectric material.

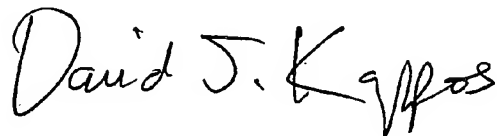
164. The device of any one of claims 83, 89, 94, 100, 101, 109, 110, 111, 114, 115, 116, 120, and 121, wherein the dielectric material is nonhomogeneous.

165. The device of any one of 83, 89, 94, 100, 101, 109, 110, 111, 114, 115, 116, 120, and 121, wherein the metal layer is comprised of a conductive coating.

This certificate supersedes the Certificate of Correction issued May 11, 2010.

Signed and Sealed this

Twenty-second Day of June, 2010

A handwritten signature in black ink, reading "David J. Kappos". The signature is written in a cursive, flowing style with a large initial "D".

David J. Kappos
Director of the United States Patent and Trademark Office

(12) **United States Patent**
McDermott et al.

(10) **Patent No.:** **US 7,501,582 B2**
(45) **Date of Patent:** **Mar. 10, 2009**

(54) **ELECTRICAL DEVICE AND METHOD FOR MAKING SAME**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 98 days.

(21) Appl. No.: **10/790,363**

(22) Filed: **Mar. 1, 2004**

(65) **Prior Publication Data**

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Related U.S. Application Data

(63) Continuation of application No. 09/694,099, filed on Oct. 20, 2000, now Pat. No. 6,700,069, and a continuation of application No. 08/905,619, filed on Aug. 4, 1997, now Pat. No. 6,141,870.

(51) **Int. Cl.**
H05K 1/03 (2006.01)

(52) **U.S. Cl.** **174/255; 174/256; 174/257**

(58) **Field of Classification Search** **174/255-262; 29/850-853; 216/15-16**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,158,827 A * 10/1992 Katagiri et al. 428/332
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* cited by examiner

Primary Examiner—Tuan T. Dinh

(57) **ABSTRACT**

A multilayer electrical device, such as a printed circuit board, having a tooth structure including a metal layer set in a dielectric. The device includes a base; a conductive layer adjacent to the base; a dielectric material adjacent to conductive layer; a tooth structure including a metal layer set in the dielectric material to join the dielectric material to the metal layer; and wherein the metal layer forms a portion of circuitry in a circuit board having multiple layers of circuitry.

165 Claims, 2 Drawing Sheets
(1 of 2 Drawing Sheet(s) Filed in Color)

